




## **Green Building, Green Innovation and Green HRM: Determinants of Green Hospital Implementation at West Pasaman Regional General Hospital**



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### **ABSTRACT**

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*green hospital, green building, green innovation, green HRM, sustainable healthcare, environmental management in healthcare*

This study aims to determine the effect of various determinants consisting of green building, green innovation and green human resource management (HRM) on the green hospital at Pasaman Barat Hospital. The population in this study were 473 employees of Pasaman Barat Hospital and a sample of 83 employees. The research method used is a survey method and data analysis for the inner model, outer model and hypothesis using SEM PLS. The findings of this study are that green HRM is the main factor driving the implementation of green hospitals in Pasaman Barat Hospital, besides that it is also influenced by the contribution of green innovation. The conclusion of this study is that employees of West Pasaman Hospital must improve green HRM and green innovation to encourage a green hospital at West Pasaman Hospital. This study recommends that future researchers combine questionnaire and interview data as data collection techniques so that the research results are more specific.

## **1. INTRODUCTION**

Hospitals, as integral parts of the healthcare industry, play a vital role in improving health and, consequently, enhancing the quality of life. However, the hospital environment has the potential to be a significant source of disease pollution to its surroundings [1]. Hospitals house numerous patients with varied disease complaints, alongside hospital workers and visitors who are both healthy and at risk of exposure to diseases originating from the hospital [2].

This unique situation implies that the environmental management of a hospital as a business cannot be equated with other types of businesses. In order to optimally perform its health service function, a hospital is required to meet certain environmental management indicators [3]. Furthermore, hospital management is intricately connected to the environmental impact of using environmentally friendly materials, the handling of medical and non-medical waste, and human resources.

Given the existence of hospitals as part of an ecosystem amidst issues of climate change, global warming, and environmental degradation, it is deemed necessary for them to take responsibility for the sustainability of environmental quality and utilization of natural resources [4].

The concept of a green hospital emerged as a response to the need for better environmental management within healthcare facilities. A healthy hospital environment not only impacts the immediate surroundings but also has wider societal implications, making the implementation of green hospitals crucial for improving the quality of health services [5]. Furthermore, there is a growing public awareness that ensuring comfort and safety within the hospital environment is a fundamental aspect of excellent service [6, 7].

One of the driving factors behind the green hospital concept

is the significant environmental footprint left by healthcare facilities, particularly in waste production and carbon emissions. Studies indicate that hospitals and healthcare facilities generate 215 million tons of carbon dioxide emissions annually [8]. In England, health facilities produce 18 million tons of carbon dioxide each year, accounting for 25% of total public sector emissions [9].

The healthcare sector is also a major consumer of electrical energy. For instance, hospitals in Brazil consume 10% of the total energy consumption of the domestic commercial sector [10], while in India, the health sector consumes 7.6% of the country's total electricity consumption [11]. In Indonesia, electricity consumption in hospitals is notably high at 225 kWh/m<sup>2</sup> [12], surpassing even Japan, which stands at 175 kWh/m<sup>2</sup> [13].

Besides energy consumption, hospitals generate substantial amounts of waste. A study of 100 hospitals in Java and Bali found that each hospital bed produces 3.2 kg of solid waste and 416.8 liters of liquid waste per day. When aggregated nationally, hospitals in Indonesia produce 376,089 tons of solid waste and 48,985 tons of liquid waste daily [14]. In the United States, hospitals and other health facilities produce about 6 million tons of waste annually [15].

These findings underscore the potential of hospitals to contribute to environmental pollution and disease transmission, highlighting the need for more sustainable practices within the healthcare sector.

Despite the pressing environmental concerns, the management of West Pasaman Regional General Hospital often overlooks the limited environmental carrying capacity of their facility. The current paradigm posits that hospital managers should prioritize ecological, social, and aesthetic balance when formulating policies. This involves optimizing environmental management and empowerment to ensure that

the hospital's activities do not add to environmental pollution. Instead, they should provide positive benefits for the environmental sustainability of the local community.

Moreover, societal demands for hospital services have evolved. Modern society increasingly seeks health services grounded in environmentally friendly principles, recognizing that environmental comfort and safety in the hospital are part of the comprehensive care they receive.

Given the continuous operation of health products and services at West Pasaman Regional General Hospital, it is vital to transition towards a hospital model based on environmentally friendly principles. This transition is not only advantageous locally but also contributes globally. Therefore, shifting West Pasaman Regional General Hospital towards an environmentally friendly concept is a strategic and necessary change, addressing health, environmental, economic, socio-cultural, and productivity aspects.

In light of these issues, this study explores various literature and green concepts to formulate a green hospital model. This model aims to address the challenges related to green practices at West Pasaman Regional General Hospital and identify the factors that either facilitate or hinder their implementation. It is worth noting that no standardized green hospital model currently exists. Thus, this research will investigate the relationship between a green hospital and other criteria, and gauge employees' perceptions of the green initiatives at West Pasaman Regional General Hospital.

## 2. LITERATURE REVIEW

### 2.1 The influence of green building on green hospital

Green building has become a critical focus in scientific studies, government initiatives, civil society, and the construction industry as part of global efforts to promote sustainability [16]. Hospitals, being the second-largest energy-consuming buildings after offices, and significant contributors of gas emissions from medical waste combustion, cannot be excluded from this focus [17]. Consequently, the design and construction of hospital buildings require special considerations.

The primary goal of green building is to create an architecturally friendly environment conducive to sustainable development [18]. This can be achieved by efficient use of energy and water, and by limiting impacts that negatively affect health [19].

Various studies have explored the relationship between green buildings and green hospitals. For instance, a study by Amran and Muhtazaruddin [20] found that implementing green building principles in hospitals can enhance patient welfare, assist curative processes, and utilize natural resources in an environmentally friendly manner. Additionally, Sahamir et al. [21] discovered that green building implementation leads to significant measurable performance in energy and resource conservation, contributing to the realization of a green hospital. Furthermore, Marshal et al. [22] established that the application of green building concepts in hospitals not only conserves energy but also reduces waste, thereby providing environmental benefits like improved air and water quality, waste reduction, and support for the conservation of natural resources.

Based on the literature review discussed, it can be concluded that the application of green building principles

plays a pivotal role in realizing a green hospital. This application encompasses several aspects, including sustainable land use planning, energy conservation and diversification, water resource preservation to ensure a continuous clean water supply, selection of materials with an environmentally friendly life cycle, and management of building systems that support environmental sustainability.

This study contributes to the expansion of green building research through several indicators, including the use of building information modeling, material specifications, and lifecycle-oriented designs.

Building information modeling replaces traditional paper-based communication methods (schedules, programs, quantities, etc.) between the design and construction teams. It focuses on the use of materials in the supply and manufacture of building products for construction projects, aiming to reduce construction dematerialization.

Material specifications can be easily adjusted from an informed position if a material is found to potentially violate sustainability principles. The design team is committed to using quality materials for project construction. This is particularly important in terms of reducing pollution, not just in the production of building materials, but also in their capacity to degrade.

Lifecycle-oriented design for a building considers demolition, reuse of materials, waste minimization, as well as energy use and emission reduction. This approach ensures that all stages of a building's life, from construction to eventual demolition, are taken into account in terms of their environmental impact.

**H1:** *Green building has a positive influence on the implementation of green hospital*

### 2.2 The influence of green innovation on green hospital

Green innovation serves as an effective environmental strategy for enhancing environmental efficiency, environmental protection, and waste management. Not only does it improve processes, products, and organizations by bolstering technological capabilities, but it also aids in pollution prevention and energy conservation. Green innovation is a mechanism that can mitigate industrial pollution and minimize environmental impacts, which are detrimental to various industries, including hospitals [23].

Green innovation is essentially divided into two categories: green product innovation and green process innovation. Green product innovation involves environmentally conscious product enhancements, such as the use of eco-friendly materials, green design, minimization of wasteful goods, and the use of recyclable products to improve hospital service quality. Green process innovation, on the other hand, introduces new methods that consider environmental impact in all activity processes [24].

Various researchers have explored the relationship between green innovation and green hospitals. For example, Issa and Jabbouri [25] found that hospital waste management requires eco-friendly innovation that can be implemented both internally and externally. Internal processing is carried out within the hospital environment using incinerators or other waste processing equipment provided by the hospital itself in accordance with statutory provisions. External processing is done in collaboration with licensed waste processors or landfills.

Furthermore, Pacifico et al. [26] discovered that wastewater treatment with nano-bubble plasma is an environmentally friendly technology as it removes odors, dyes, and hazardous substances, purifying water polluted by waste. This technology is safe, as it does not use chemicals in the process, and the resulting water can be reused. Nano-bubble plasma technology is also energy-efficient, easy to operate, portable, and can be used both upstream and downstream, thus contributing to the creation of a green hospital.

Additionally, Cavicchi and Vagnoni [27] found that hospitals that manage liquid waste for recycling or reuse contribute to the realization of environmentally friendly hospitals.

In conclusion, based on the literature review, it's evident that the application of green innovation will support the implementation of a green hospital. This involves strategic plans using new techniques, systems, practices, and processes that minimize environmental deterioration or damage. This research contributes to the expansion of green innovation studies through indicators such as green technology innovation, green competitive advantage, and green process innovation.

Green technology innovation involves employees of the West Pasaman regional general hospital adopting a detailed storage plan, advanced green production technology, investment in green technology and equipment, and the management and transfer of documentation and information.

Green competitive advantage sees employees of the West Pasaman regional general hospital enhancing production processes and efficiency, service quality, and knowledge and information.

Lastly, green process innovation involves the design and innovation of processes, recycling, reuse, and remanufacturing of products, low energy consumption, and the use of green technology by employees of the West Pasaman regional public hospital.

**H2:** *Green innovation has a positive influence on the implementation of green hospital*

### 2.3 The influence of green HRM on green hospital

Green Human Resource Management (HRM) plays a crucial role in managing employees from their recruitment and orientation through to their exit. Today, high employee satisfaction is achieved and maintained not just through non-physical and social policies, but also through environmentally conscious practices [28]. It is believed that adopting green practices and policies can enhance employee engagement and productivity [29].

Green HRM, a concept that is emerging as a global trend, is designed to foster green, environmentally friendly behaviors among employees in the workplace. The Human Resource Management function can drive environmental sustainability within the organization by aligning its practices and policies with sustainability objectives that have an environmental focus [30]. This includes implementing environmentally sound HRM functions, which result in increased efficiency, reduced costs, and improved employee engagement and retention [31].

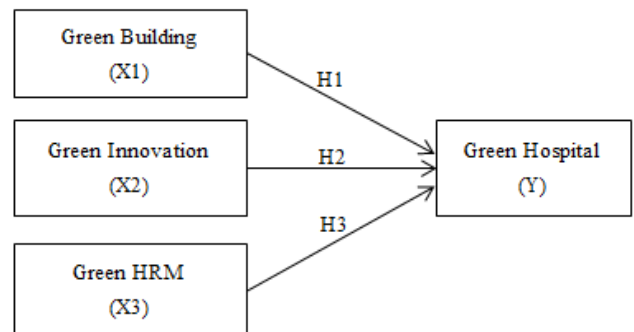
Several researchers have examined the relationship between green HRM and green hospitals. For instance, Mousa and Othman [32] found that employees with a solid understanding of environmental concerns can expedite the green hospital

implementation process. Moreover, Pinzone et al. [33] discovered that the implementation of green HRM supports the realization of a green hospital. Finally, Kumar and Chakraborty [34] concluded that green HRM is a critical factor in achieving a green hospital.

From the literature review discussed, it can be concluded that the implementation of green HRM will aid in the realization of a green hospital. This is because employees will commit to minimizing negative environmental impacts, reducing waste, and promoting recycling, thereby decreasing environmental pollution. This research contributes to expanding green HRM studies through several indicators, namely green competence, green attitude, and green outcomes.

Green competence refers to the ongoing improvement of an organization's environmental performance. A green attitude denotes a profitable mindset that aligns belief (cognitive), feeling (affective), and intention to act (behavioral) in support of greening. Green outcomes are environmentally friendly results or outputs. These are defined as the extent to which employees have produced green results (Figure 1).

**H3:** *Green HRM has a positive influence on the implementation of green hospital*



**Figure 1.** Research conceptual framework

## 3. RESEARCH METHODOLOGY

### 3.1 Research strategy

The survey method was determined as a strategy in this research. Research methods are based on the philosophy of positivism, used to research certain populations or samples, collecting data using research instruments, quantitative or statistical data analysis, with the aim of testing predetermined hypotheses.

### 3.2 Population and sample

The population in this study included 473 employees of West Pasaman Regional General Hospital. Furthermore, the sampling technique used in this study is the Stratified Random Sampling technique, which is a sampling technique taking into account a level of population elements. Because the large number of population is known, then to determine the sample size in this study using the Slovin formula in Eq. (1).

$$n = \frac{N}{1 + Ne^2} \quad (1)$$

where,  $n$ =Sample size;  $N$ =Population size;  $e^2$ =Error 10%.

Based on Eq. (1), the number of samples for Pasaman Barat Hospital employees are:

$$n = \frac{473}{1 + 473(0.1)^2} = \frac{473}{5.73} = 82.54 = 83 \text{ employee} \quad (2)$$

Based on the calculation of the number of samples using the Slovin formula in Eq. (2), the number of samples used in this study was 83 people.

### 3.3 Data analysis technique

This research applies Partial Least Squares (PLS) to quickly explore a large number of variables to identify a set of variables that can predict several outcome variables. PLS does not face the model complexity problems that SEM does and is therefore able to handle a large number of variables and/or constructs with ease. Lastly, PLS is not sensitive to sample size considerations. Estimation approaches handle very small and very large samples more easily by performing SEM. PLS is very useful in generating estimates even with very small samples. The analysis steps that will be used in this research are as follows:

#### 3.3.1 Outer model analysis

Evaluation of the measurement model or outer model is carried out to assess the validity or reliability of the model. The outer model with reflexive indicators is evaluated through convergent and discriminant validity of the indicators forming the latent construct and composite reliability as well as Cronbach alpha for the block of indicators tested on the outer model consisting of five types. First, Convergent Validity to determine the reliability of the indicator if the correlation value is in the range of 0.5-0.6. Second, Discriminant Validity to determine sufficient discriminant in the construct. Third, Average Variance Extracted, which must be above 0.5. Fourth, Composite Reliability, which must be between 0.6-0.7. Fifth, Cronbach Alpha, which must be above 0.6.

#### 3.3.2 Inner model analysis

Inner model analysis to predict the relationship between latent variables. The inner model evaluation can be seen from several indicators which consist of three stages. First, the coefficient of determination (R-Square). Second, Predictive Relevance (Q2), if the value is greater than 0 then relevance is predictive and if the value is smaller than 0 then relevance is not predictive. Third, Assessment of Goodness of Fit (GoF) to provide a measure of the overall model predictions.

#### 3.3.3 Hypothesis test

Hypothesis testing aims to determine the level of significance of each variable, for this reason this research settled on an alpha of 5%. Furthermore, variables that have a significant effect must be below the predetermined alpha level.

## 4. MORE DETAILS ABOUT PAPER TITLE AND RESULTS AND DISCUSSION

### 4.1 Description of respondents

#### 4.1.1 Description of respondents by gender

Table 1 summarizes the results of the questionnaire for the gender percentage of respondents. The conclusion from Table 1 is that women dominate as respondents.

**Table 1.** Description of respondents by gender

Gender	Frequency	Percent
Man	25	30%
Woman	58	70%
Total	83	100%

Source: Processed Data, 2022.

#### 4.1.2 Description of respondents by age

Table 2 summarizes the results of the questionnaire for the age percentage of respondents. The conclusion from Table 2 is that ages 36-45 dominate as respondents.

**Table 2.** Description of respondents by age

Age	Frequency	Percent
26 – 35 years	25	30%
36 – 45 years	40	48%
46 – 55 years	18	22%
Total	83	100%

Source: Processed Data, 2022.

#### 4.1.3 Description of respondents by education

Table 3 summarizes the results of the questionnaire for the education percentage of respondents. The conclusion from Table 3 is that postgraduate education levels dominate as respondents.

**Table 3.** Description of respondents by education

Education	Frequency	Percent
Senior High School	5	6%
Diploma	22	27%
Bachelor	23	28%
Postgraduate	33	39%
Total	83	100%

Source: Processed Data, 2022.

#### 4.1.4 Description of respondents by income

Table 4 summarizes the results of the questionnaire for the income percentage of respondents. The conclusion from Table 4 is that employee income > IDR 35,000,000/month dominates as respondents.

**Table 4.** Description of respondents by income

Income	Frequency	Percent
< IDR 1,500,000/month	20	24%
IDR 1,500,000 – IDR 2,500,000/month	6	7%
IDR 2,500,000 – IDR 3,500,000/month	10	12%
> IDR 3,500,000/month	47	57%
Total	83	100%

Source: Processed Data, 2022.

#### 4.1.5 Description of respondents by length of work

Table 5 summarizes the results of the questionnaire for the income percentage of respondents. The conclusion from Table 5 is that the work period of 10-19 years at the West Pasaman Regional General Hospital dominates as respondents.

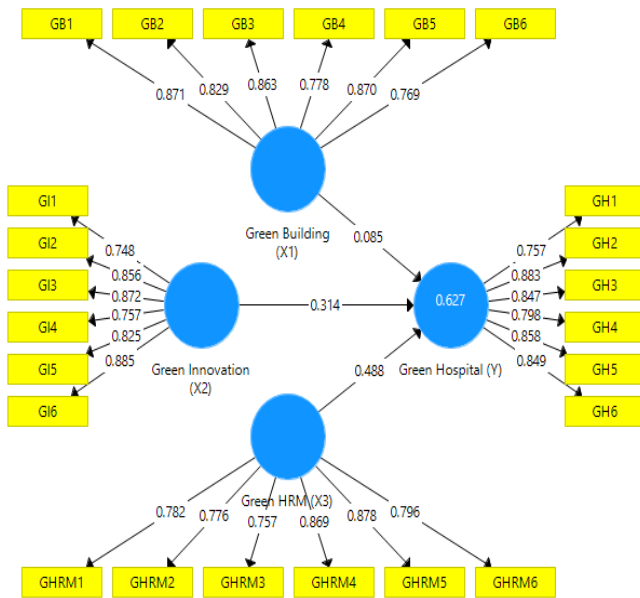
**Table 5.** Description of respondents by length of work

Length of Work	Frequency	Percent
0 – 4 years	23	28%
5 – 9 years	21	25%
10 – 19 years	39	47%
Total	83	100%

Source: Processed Data, 2022.

## 4.2 PLS analysis

In this research, the influence of green building, green innovation and green HRM variables on green hospitals. The VENN diagram for this research can be seen in Figure 2, which aims to explain the relationship between sets that have similar values and numbers within a group.



**Figure 2.** VENN diagrams  
Source: Processed Data, 2022

## 4.3 Evaluation of the measurement model (Outer model)

### 4.3.1 Convergent validity

Based on Figure 2, it can be seen that the convergent validity of this research as a whole is greater than 0.70 so that all the variables determined in this research have valid indicators. Furthermore, the AVE value for each construct can be seen in Table 6, where for all variables in this research meets the good category.

### 4.3.2 Discriminant validity

The results of the analysis for discriminant validity can be seen in Table 7, which is fulfilling the established criteria.

### 4.3.3 Composite reliability and cronbach alpha

The results of the analysis for cronbrach alpha and composite reability can be seen in Table 8, which is fulfilling the established criteria.

**Table 6.** AVE value

Variable	Nilai
Green Building (X1)	0.691
Green Innovation (X2)	0.658
Green HRM (X3)	0.694
Green Hospital (Y)	0.682

Source: Processed Data, 2022.

**Table 10.** Hypothesis testing results

Influence between Variables	Coefficient	t-Statistics	p-Value	Decision
Green Building (X1) → Green Hospital (Y)	0.085	1.014	0.311	Not significant
Green Innovation (X2) → Green Hospital (Y)	0.488	3.909	0.000	Significant
Green HRM (X3) → Green Hospital (Y)	0.314	2.584	0.000	Significant

Source: Processed Data, 2022.

**Table 7.** Discriminant validity results

	Green Building (X1)	Green Innovation (X2)	Green HRM (X3)	Green Hospital (Y)
Green Building (X1)	0.831			
Green HRM (X3)	0.433	0.811		
Green Hospital (Y)	0.478	0.746	0.833	
Green Innovation (X2)	0.579	0.707	0.708	0.826

Source: Processed Data, 2022.

**Table 8.** Composite reliability and cronbach alpha results

	Cronbrach Alpha	Composite Reability
Green Building (X1)	0.912	0.930
Green HRM (X3)	0.895	0.920
Green Hospital (Y)	0.912	0.931
Green Innovation (X2)	0.906	0.928

Source: Processed Data, 2022.

## 4.4 Evaluation of the measurement model (Inner model)

### 4.4.1 Effect size ( $f^2$ )

The results of the  $f^2$  analysis can be seen in Table 9, where green HRM has the greatest influence when compared to other variables.

**Table 9.**  $f^2$  results

	Green Hospital (Y)
Green Building (X1)	0.021
Green Innovation (X2)	0.108
Green HRM (X3)	0.318

Source: Processed Data, 2022.

### 4.4.2 Coefficient of determination (R-square)

Based on the analysis that has been carried out, the R-square value is 0.627, meaning that green building, green innovation and green HRM have a contribution of 62.7% to green hospitals. Meanwhile, the remaining 37.3% was influenced by other factors outside the variables used in this research.

## 4.5 Hypothesis testing

Based on the information in Table 10, it can be seen the significance of the influence of each green building, green innovation and green HRM variable with the following explanation:

First, Green building has a positive but not significant effect on the green hospital because of the acquisition of a p-value of 0.311. These results illustrate that green building is not one of the factors that affect the green hospital.

Second, Green innovation has a positive and significant effect on the green hospital because of the acquisition of a p-value of 0.000. These results illustrate that green innovation is one of the factors that influence green hospitals.

Third, Green HRM has a positive and significant effect on the green hospital because of the acquisition of a p-value of 0.000. These results illustrate that green HRM is one of the factors that influence green hospitals.

## 5. DISCUSSION

### 5.1 Effect of green building on green hospital

Green building does not significantly influence the implementation of a green hospital, making it an unsuitable benchmark. This is supported by research from Kumar and Chakraborty [34], who found that green building contributes minimally to the implementation of a green hospital if the application of spatial planning documents, which regulate the location of public and social facilities according to the function of the land, is not optimized.

Several indicators are hindering green building at the West Pasaman Regional General Hospital, which in turn affect the implementation of a green hospital. Firstly, the original building plan was developed based on adapting existing buildings for continuous service using existing infrastructure. However, the land development for the West Pasaman Regional General Hospital has not fully utilized available land to support a green hospital, despite having ample space. Therefore, decision-makers, both internal to the hospital and stakeholders, must collaborate to ensure its realization.

Secondly, the West Pasaman Regional General Hospital has not provided access to public transportation or special pedestrian access, has not used low-emission vehicles, and does not offer dedicated bicycle parking.

Thirdly, the hospital lacks a healing garden in the form of outdoor and indoor greenery facilities, as these were not included in the master building construction plan.

Fourthly, the West Pasaman Regional General Hospital has yet to employ personnel certified in green building, compile a green building implementation database, or conduct regular surveys to gauge building user comfort.

Fifthly, the hospital has not implemented maintenance and monitoring procedures for room air conditioning. This is due to the rooms not being equipped with carbon emission measuring devices, temperature and humidity controllers, and noise reduction devices.

Sixthly, the green open space at the West Pasaman Regional General Hospital does not conform to the Minister of Health standards No. 24 of 2016, which stipulate that technical requirements for hospital buildings and infrastructure for parks/green open spaces (RTH) should occupy at least 15% of the land area.

Seventhly, the hospital's ventilation area does not meet the standard set by the Minister of Health Regulation No. 1204/Menkes/SK/X/2004, which mandates a minimum hospital environment requirement of 15% of the floor area.

The fundamental challenge to be addressed is to create buildings categorized as low-energy consumption to minimize negative environmental impact. Further, there's a need to consider the quality of materials to determine energy-efficient requirements in green buildings, as well as the quality of materials, products, and systems used in the construction.

### 5.2 Effect of green innovation on green hospital

Green innovation significantly impacts green hospitals, making it a crucial benchmark. Research by Issa and Jabbouri [25] supports this, finding that green innovation combines technological advancements that save energy, prevent pollution, or facilitate waste recycling. This can also include environmentally friendly product design and corporate environmental management. Such innovation contributes to

business sustainability, as it can positively affect a company's financial, social, and environmental outcomes. Green innovation encompasses green products, green processes, green services, and green technologies directly related to operational activities.

The conditions leading to green innovation have contributed to the realization of a green hospital at the West Pasaman Regional General Hospital. The leaders of the West Pasaman Regional General Hospital have attempted to implement environmentally friendly innovations, thus aiding in the establishment of an environmentally friendly hospital. These innovations include green product innovation, green process innovation, green service/competitive advantage innovation, green technology innovation, and green managerial innovation.

Green innovation is one of the strategies used by the West Pasaman Regional General Hospital to achieve strategic targets as a green hospital. This involves the use of new techniques, systems, practices, and implementation processes, or transformations designed to reduce environmental deterioration or damage. Through green innovation, the hospital can optimize productivity, enhance cost efficiency, and produce new, more environmentally friendly services to support the achievement of a green hospital.

### 5.3 Effect of green HRM on green hospital

Green Human Resource Management (HRM) significantly influences green hospitals, making it a benchmark in this field. This is supported by research by Bose and Gupta [35], who found that the goal of green HRM is to foster, enhance, and sustain environmental consciousness among employees, enabling them to make the maximum contribution to the green industry.

The conditions that have led green HRM to contribute to the implementation of a green hospital at the West Pasaman Regional General Hospital are mainly due to the hospital's leaders implementing environmentally friendly human resources. This has facilitated the proper creation of an environmentally friendly hospital. This is because green HRM has been implemented by fostering green competence, green behavior, and green attitude among employees.

Moreover, environmental training and development have been adopted as key methods by HRM to foster environmental management support and initiatives. The most significant impact on environmental awareness among employees is achieved through environmental training. Employee training and development programs that have been carried out cover social and environmental issues at all levels. These include programs, workshops, and sessions designed to enable employees to develop and acquire knowledge in environmentally friendly hospital environmental management.

## 6. CONCLUSIONS

Based on the research conducted, it can be concluded that green innovation and green Human Resource Management (HRM) are crucial factors in creating a green hospital at the West Pasaman Regional General Hospital. These two constructs have a positive and significant effect on the formation of a green hospital. Therefore, the better the implementation of green innovation and green HRM, the better the realization of a green hospital at the West Pasaman Regional General Hospital.

To enhance green innovation, the West Pasaman Regional General Hospital could adopt policies such as managing liquid and solid waste for recycling or reuse, using sterilizers to treat solid medical waste, employing automatic tools to reduce water consumption, and utilizing temporary storage machines for solid medical waste.

To improve green HRM, the hospital could adopt policies such as preserving plants in the hospital environment, reminding patients/visitors to always maintain cleanliness in the hospital environment, and reducing electricity and water usage.

Overall, to foster the implementation of a green hospital at the West Pasaman Regional General Hospital in an optimal, integrated, and controlled manner, the management should establish a regular evaluation schedule for easier monitoring. The promotion of a green hospital should be intensified towards internal and external customers through bulletins and posters readable by all customers. This bulletin could serve as a communication forum about the green hospital implementation. Besides saving paper, it would also facilitate real-time monitoring of the green hospital implementation. Additionally, the budget for implementing the green hospital should be strengthened to ensure optimal execution of the agenda.

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